



UNITED STATES DEPARTMENT OF COMMERCE
Pat nt and Trademark Offic

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/508,771	03/16/00	KIMURA	J 500.38296X00

020457 IM22/1220
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EXAMINER

HAMILTON, C

ART UNIT	PAPER NUMBER
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1752

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DATE MAILED: 12/20/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/508,771	Applicant(s) KIMURA ET AL.	
	Examiner Cynthia Hamilton	Art Unit 1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4-12-2000, 7-5-2000, 9-7-2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 20) <input type="checkbox"/> Other: _____ |

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1. Claims 1-35 are presented for examination. Claims 1-8 were originally submitted with the application and claims 9-35 were submitted by pre-amendment.

2. The information disclosure statement filed March 16, 2000 as "INFORMATION UNDER 37 CFR 1.56(A)" fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the statement fails to identify each foreign patent or published foreign patent application by country and with the publication date. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1- 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fifield et al (DE 3825782 A, English abstract (Derwent-ACC-NO. 1989-047784) in view of applicants own disclosure further in view of Hilger et al (4,698,292) and Tanguchi et al (4,360,582) and Taguchi et al (GB 2,049,072) and Bennet (EP 0,091,693).

Applicants disclose the prior art addressed the problem solved by the instant laminate and processes on page 2, lines 16, to page 3, line 28, which consists in preventing the formation of air voids on the photosensitive layer of a photosensitive film which are caused by fish eyes contained in a protective film. Fifield et al also recognizes this problem but refers to gell and inclusion in the protective film instead of fisheyes and points to the use of low quality LDPE as the reason for the defects. The solution given by Fifield et al is to use a higher quality of cover film with less gell and fewer inclusions. The only addition made to the prior art by applicant's invention is the specification of the maximum number and size of fish eyes allowed. However, the determination of acceptable values is a task within the skill of the ordinary worker in the art and can be accomplished by routine experimentation with various qualities of commercially available materials. Applicants have used such commercially available materials as evidenced by the use of tradename materials in Table 2 for their comparison tests. As to thickness of the photosensitive resin layer in such films, Tanguchi et al in col. 9, lines 15-19, give a preferred range of 5 to 70 μ with the thinner the layer the more improved the resolution while Hilger et al in col. 4, lines 51-54, give 10 to 100 μ m or 15 to 70 μ m as the preferred range of thickness. With respect to instant claims 4 and 28, Tanguchi et al also give polypropylene as one choice of the protective film in col. 10, lines 15-23. With respect to instant claims 2, 8, 10, 23-25, the Hilger et al make use of known photopolymerizable layers in their three layer dry photoresists in their examples which meet the requirements of the instant compositions. With respect to instant claims 9, 20 and the thickness of the temporary substrate layer, Tanguchi et al address the thicknesses in col. 9, lines 20-65, and col. 10, lines 1-14, which are taught to be most preferably 10 to 30 μ with the choice being made with respect to the amount of support needed, ie enough to give strength during stripping of the cover layer and avoid deformation, and the need to stay as thin as possible to help resolution, development time and life of the developer. The maximization of this thickness with respect to various supports would have been within the skill of the worker in the art guided by these teachings. With respect to instant claim 22 and the thickness of the strippable protective film, Tanguchi et al

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teach, in col. 10, lines 1-23, a preferred thickness of 10 to 30 μ . With respect to instant claims 1-35, the examiner states that the photosensitive layers and components are all well known in the art as are the trilayer dry photoresists and their use as etch resists (see Tanguchi et al, col. 10) and the modifications made by applicants to reduce the number of fisheyes in the cover film by is also known in the art with the maximization of thicknesses and reduction of imperfections in the film being within the skill of the ordinary worker in the art when directed by the teachings set forth with regard to applicant's disclosure and that of Fifield et al. Taguchi et al (see page 5, lines 57-line 61) and Bennet (see particularly page 5, lines 9- page 6, lines 16, page 6, line 19, and page 4, lines 18-21) show other known compositions used in this manner.

8. Claims 15-17 and 33-35 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants on page 4, state as an object of the invention as lamination of their photosensitive film to a substrate having a metallic surface. There is no disclosure to the broader limitation of all substrates.

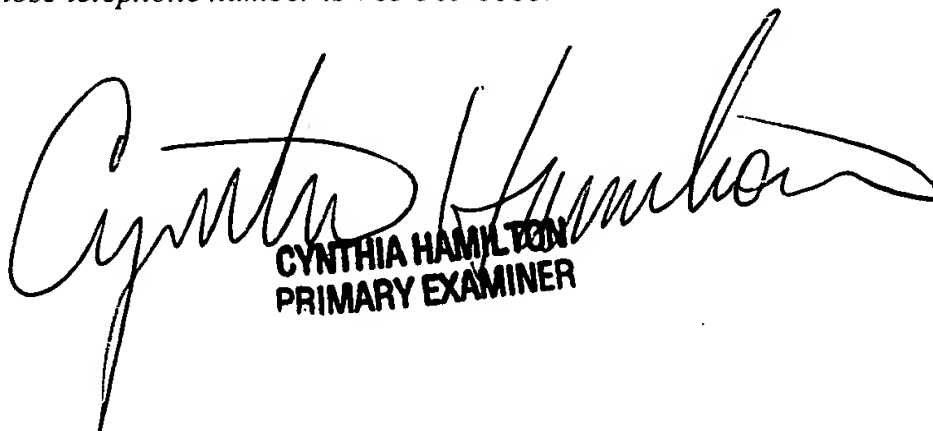
9. Claims 19, 23-35 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants on page 5, lines 10-19, and page 17 lines 1-18, limit their laminate to the presence of a third support film. There is no support for the two layer laminate of instant claims 19 and 13-35 without this film support.

10. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is 703 308 3626. The examiner can normally be reached on Monday-Friday.*

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on 703 308 2303. The fax phone numbers for the organization where this application or proceeding is assigned are 703 305 7718 for regular communications and 703 305 3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 0661.

C. Hamilton
December 16, 2000


CYNTHIA HAMILTON
PRIMARY EXAMINER